



Leading Science. Leading Practice.

November 6 – 9, 2018  Sheraton Centre, Toronto

# PROGRAM



critical care  
canada

F O R U M

**WEDNESDAY, NOVEMBER 7, 2018**

7:00-17:00	<b>REGISTRATION OPEN</b>	Concourse
7:00-8:00	Coffee & Tea Served	Vide Foyer

**Plenary RCTs** Grand EAST

<b>Moderators:</b>	B Kavanagh, N Ferguson	
7:30-7:45	J-C Richard	The BiRDS Trial – Early Spontaneous Breathing in ARDS
7:45-7:50	G Bellani	Editorial Comment
7:50-8:00		Questions and Discussion
8:00-8:15	D Talmor	EPVENT2 Trial - Esophageal Pressure in ARDS
8:15-8:20	M Amato	Editorial Comment
8:20-8:30		Questions and Discussion

**Sepsis I - Mechanistic Insights** Grand EAST

<b>Moderators:</b>	M Shankar-Hari, J Bubeck-Wardenberg	
8:30-8:35		Presentation of the 2018 Global Sepsis Alliance Award to Dr. A Fox-Robichaud
8:35-8:55	M Singer	Myths, Dogma and Misconceptions in Sepsis
8:55-9:15	J Fraser	The Mitochondria in Sepsis
9:15-9:35	K Walley	Lipoproteins in Sepsis
9:35-9:55	H Wong	Molecular Subclasses of Sepsis
9:55-10:00		Discussion

**Spontaneous Breathing with Mechanical Ventilation** Grand CENTRE

<b>Moderators:</b>	L Munshi, M Schultz	
8:30-8:50	T Yoshida	The Dark Side of Spontaneous Breathing
8:50-9:10	E Goligher	Safe Spontaneous Breathing
9:10-9:30	G Bellani	Plateau and Driving Pressure During Spontaneous Breathing
9:30-9:50	L Brochard	Respiratory Mechanics to Deliver Safe Ventilation in ARDS
9:50-10:00		Discussion

**ATS Workshop – The Research Agenda for Precision Medicine in ARDS & Sepsis Identifying Endotypes in Sepsis & ARDS**

Grand WEST

<b>Moderators:</b>	S Yende, E Azoulay	
8:30-8:50	P Sinha	Using Observational and RCT Datasets to Identify Endotypes
8:55-9:15	A Gordon	Integrating Omics Platforms and Using EHR to Identify Endotypes (Simplifying Complex Data for RCTs)
9:20-9:40	G Clermont	Statistical Approaches to Identify Endotypes
9:45-10:00		Group Discussion for All Panelists

**CIHR-CCCS Forum – Creating a Diverse and Inclusive Research & Training Environment: Addressing Diversity Issues in Training & Research**

Sheraton AB

<b>Moderators:</b>	D Piquette, A Lelegidowicz	
8:30-8:40	K Burns; R Perry	Welcome and Opening Blessing
8:40-9:05	C Tannenbaum	Sex & Gender Equality Policy in Research Funding
9:15-9:30	A Fox-Robichaud	Professional Societies in Equity & Diversity Issues
9:35-10:00	G Vazquez; C Gomez	Trainee Abstract Discussion
9:35-9:40	G Xu	Oral Abstract: Gender Disparity in CCM Research
9:45-9:50	J Spring	Oral Abstract: Gender and Evaluation in CCM
9:50-10:00		Discussion
<b>10:00-10:30</b>	<b>BREAK</b>	

**All About the PEEP** Grand EAST

<b>Moderators:</b>	C Hough, E Goligher	
10:30-10:50	G Bellani	Bedside PEEP Setting by EIT
10:50-11:10	M Amato	Eye-Opening Reanalysis of the ART Trial
11:10-11:30	A Vieillard-Baron	PEEP Can Adversely Affect the Right Heart
11:30-11:50	T Yoshida	CNAP is Better Than PEEP
11:50-12:00		Discussion

**Protecting and Preserving the Injured Brain**

Grand CENTRE

<b>Moderators:</b>	G Boyd, A Baker	
10:30-10:50	V McCredie	Rethinking Neuroprotection in Acute Brain Injury
10:50-11:10	G Van den Berghe	Glucose and the Brain in ICU: Hyper Versus Hypo?
11:10-11:30	A Turgeon	Should Decompressive Craniectomy Ever Be Done in TBI?
11:30-11:50	M Singer	Suspended Animation for Ischaemia-Reperfusion Injury
11:50-12:00		Discussion

**ATS Workshop – The Research Agenda for Precision Medicine in ARDS & Sepsis Organizing & Sustaining Precision Platforms**

Grand WEST

<b>Moderators:</b>	N Meyer, N Ferguson	
10:30-10:50	H Wong	Identifying and Validating Biomarkers for Multicenter RCTs
10:55-11:15	C Calfee	Learning From Breast Cancer and Stroke
11:20-11:40	N Aggarwal	Novel Funding Mechanisms to Sustain Precision Medicine Platforms
11:40-12:00		Group Discussion for All Panelists

**CIHR-CCCS Forum – Creating a Diverse and Inclusive Research & Training Environment: Indigenous Peoples' Issues in Training & Research**

Sheraton AB

<b>Moderators:</b>	M Sen, A Mendelson	
10:30-10:50	P Camp	Walking the Road of a Researcher Ally
11:00-11:15	L Richardson	Iterative Peer Review for Indigenous Health Research
11:20-11:35	M St. Onge	Indigenous Patients' Healthcare Experience After Overdose
11:35-12:00	A Binnie; M Peretz- Larochele	Abstract Discussion
11:35-11:40	D Lee	Oral Abstract: Social Determinants and Critical Events
11:45-11:50	C Yarnell	Oral Abstract: Ethnicity and Care Limitation in CCM
11:55-12:00	A Fox-Robichaud; R Perry	Closing Remarks

12:00-13:00 LUNCH

12:00-13:00 CCCS AGM

Grand CENTRE

**Plenary Session: Threats to the Concept of Brain Death**

Grand EAST

<b>Moderators:</b>	N Ferguson, B Kavanagh	
13:00-13:05	B Kavanagh	Case Presentation
13:05-13:20	A Joffe	Medical - Death is Not Brain-Based
13:20-13:35	S Shemie	Medical - Death is Brain-Based
13:35-13:50	H Scher	Legal Uncertainty
13:50-14:05	D Jarvis	Legal Coherence
14:05-14:20	R Sibbald	Ethical Reflections
14:20-14:35	D Greer	International Perspectives on Threats to Brain Death
14:35-15:00		Panel Discussion and Audience Questions

15:00-15:30 BREAK

**Organ Donation I**

Grand EAST

<b>Moderators:</b>	S Dhanani, S Beed	
<b>Panelists:</b>	M Thompson, D Greer, A Healey, J Singh, M Weiss	
15:30-15:50	A Kramer	Changing Demographics in Death After Devastating Brain Injury
15:50-16:10	S Keenan	The Opiate Epidemic and Organ Donation
16:10-16:50	Panel	Death Determination: Challenging Cases
16:50-17:00		Discussion

**Critical Care Cardiology**

Grand CENTRE

<b>Moderators:</b>	D Talmor, G Douflé	
15:30-15:50	M Singer	High Dose GIK Therapy for Low Output Shock
15:50-16:10	A Vieillard-Baron	The Right Ventricle: From Physiology to Clinical Application
16:10-16:30	S Magder	Who Cares About the Diastolic Pressure?
16:30-16:50	J-C Richard	Cardiopulmonary Interaction During CPR
16:50-17:00		Discussion

**Sepsis II - Emerging Therapies**

Grand WEST

**Moderators:** A Kumar, P Marik

15:30-15:50 A Torres New Frontiers for Antibiotics

15:50-16:10 M Shankar-Hari New Frontiers for IVIG in Sepsis

16:10-16:30 A Combes VA ECMO for Septic Shock

16:30-16:50 C dos Santos Cellular Immunotherapy in Sepsis

16:50-17:00 Discussion

**Engaging Patients and the ICU Team**

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**Moderators:** R Fowler, K Fiest

15:30-15:50 A Amaral An International Perspective on Interprofessional Rounds

15:50-16:10 D Costa ICU Teams and Implementation Science

16:10-16:30 K Fiest Engaging Patients and Families in Critical Care Research

16:30-16:50 K Choong The New PICU - From a Toxic to Healing Environment

16:50-17:00 Discussion

**Plenary Address**

Grand EAST

**Moderators:** G Van den Berghe, E Wilcox

17:00-17:40 P Marik Hydrocortisone, Vitamin C and Thiamine for Septic Shock

17:40-17:50 N Adhikari Not So Fast - We Need More Data

17:50-18:00 Questions and Discussion

18:00-19:00

WELCOME RECEPTION  
& AWARDS CEREMONY

Exhibit Hall

**THURSDAY, NOVEMBER 8, 2018**

7:00-16:00

REGISTRATION OPEN

Concourse

7:00-8:00

Coffee &amp; Tea Served

Vide Foyer

**Plenary Address**

Grand EAST

**Moderators:** S Keenan, M Hartwick

8:00-8:25 A Healey Restarting the Heart after Death in DCD

8:25-8:30 Questions and Discussion

**Organ Donation II**

Grand EAST

**Moderators:** M Hartwick, S Keenan

08:30-08:45 I Ball Canadian Guidelines for Donor Management - Update

08:45-09:00 M Meade Results of the Canada-DONATE Cohort Study

09:00-09:10 Questions and Discussion

09:10-09:30 A Sarti Engaging Decision Makers and Family in Organ Donation

09:30-09:50 M Chasse;  
M Weiss Canadian Intensivist Attitudes to Deceased Donation

9:50-10:00 Questions and Discussion

**Mechanical Ventilation I**

Grand CENTRE

**Moderators:** K Bosma, M Schultz

8:30-8:50 L Brochard Patient Ventilator Dyssynchrony

8:50-9:10 Y Skrobik Sedation and Ventilator Asynchrony

9:10-9:30 N Meyer Ventilation in Severe Airflow Obstruction

9:30-9:50 A Seely How to Optimize Timing of Extubation

9:50-10:00 Discussion

**Rehab and Mobilization**

Grand WEST

<b>Moderators:</b>	B Cuthbertson, M Kho	
8:30-8:50	M Herridge	Rehabilitation: Before, During and After ICU
8:50-9:10	C Hough	ICU Mobility - What Have We Learned and What's Next?
9:10-9:30	D Brodie	Early Mobilization During ECMO: Do We Have Data?
9:30-9:50	C Hodgson	Physical Function After ICU
9:50-10:00		Discussion

**Controversies in Antimicrobial Management – CCCF / CCIDN**

Sheraton AB

<b>Moderators:</b>	W Sligl, A Gordon	
8:30-8:50	A Kumar	Combination Therapy is Best
8:50-9:10	M Klompas	Combination Therapy is Bust
9:10-9:30	S Qureshi	Empiric Therapy for Suspected Severe S. aureus Infection
9:30-9:50	C Rotstein	Empiric Therapy for Suspected Fungal Sepsis
9:50-10:00		Discussion
10:00-10:30	BREAK	

**Organ Donation – DCD**

Grand EAST

<b>Moderators:</b>	J Singh, A Kramer	
10:30-10:50	A Ruiz	Uncontrolled DCD: The Spanish Experience
10:50-11:10	B Grunau	E-CPR for Out of Hospital Cardiac Arrest
11:10-11:30	A Ruiz	In-Situ v Ex-Vivo Regional Perfusion for Abdominal Organs
11:30-11:50	S Shemie	Trust and Integrity in the Donation System
11:50-12:00		Discussion

**ARDS & VILI**

Grand CENTRE

<b>Moderators:</b>	E Fan, M Shankar-Hari	
10:30-10:35	A Grassi	Oral Abstract: Driving Pressure During Spontaneous Ventilation
10:40-11:00	B Kavanagh	Cardiac Impact on VILI
11:05-11:25	M Schultz	Phenotyping of ARDS and Non ARDS Patients
11:30-11:50	C Calfee	ARDS Subphenotypes: Differential Treatment Responses
11:50-12:00		Discussion

**Shock & Resuscitation – The AC Bryan Physiology Symposium**

Grand WEST

<b>Moderators:</b>	C dos Santos, K Walley	
10:30-10:50	G Van den Bergh	Relative Adrenal Insufficiency in the ICU: Fact or Fiction?
10:50-11:10	P Marik	Lactate: The Myths
11:10-11:30	S Magder	Does pH Matter?
11:30-11:50	J Fraser	Fluid Is a Drug and We Don't Know the Dose
11:50-12:00		Discussion

**Acute Care Hematology & More...**

Sheraton AB

<b>Moderators:</b>	D Scales, C dos Santos	
10:30-10:50	E Azoulay	Thrombotic Microangiopathies in the ICU
10:50-11:10	D Cook	Bleeding Prevention in the ICU
11:10-11:15	A Mendelson	Oral Abstract: NIRS and Microvascular Hemoglobin
11:20-11:40	M Tucci	Red Cell Transfusions in the PICU - When, What & How Much
11:40-11:50	S Lapinsky	HELLP! Caring for the Critically Ill Pregnant Patient
11:50-12:00		Discussion

12:00-13:00 LUNCH

**PLENARY SYMPOSIUM –  
What is Value-Based Health Care in Canada?**

Grand EAST

<b>Chairs:</b>	K Walley	Director of the Centre for Heart and Lung Innovation, St. Paul's Hospital, Vancouver
	A Brown	Dean, Dalla Lana School of Public Health, University of Toronto

**Perspectives from Opinion Leaders:**

13:00-13:15	N Fraser	CEO, Medtronic Canada
13:15-13:30	V Yiu	President & CEO, Alberta Health Systems
13:30-13:45	A Picard	Health & Public Policy Journalist and Author
13:45-14:00	T Noseworthy	President & CEO, British Columbia Academic Health Sciences Network
14:00-14:30		Questions and Panel Discussion

14:30-15:00 BREAK

**Critical Care Systems - The WJ Sibbald Symposium**

Grand EAST

**Moderators:** R Fowler, D Klein

15:00-15:20 E Wilcox Demand and Strain on Critical Care Units

15:20-15:40 K Rowan Improving Transfers from Ward to ICU

15:40-16:00 T Stelfox Improving Transfers from ICU to Ward

16:00-16:20 G Rubinfeld De-Adoption: The New Quality Improvement

16:20-16:30 Discussion

**Brain Injury – Monitoring & Prognostication**

Grand CENTRE

**Moderators:** V McCredie, M Chasse

15:00-15:05 K Lee Oral Abstract: Non-Invasive Personalized Cerebral Perfusion

15:10-15:15 S Ganesan Oral Abstract: Quantitative EEG

15:20-15:40 G Boyd Neurological Prognostication in the Intensive Care Unit

15:40-16:00 J Claassen Impairment and Recovery of Consciousness

16:00-16:20 A Turgeon Should We Be Measuring Brain Oxygenation?

16:20-16:30 Discussion

**ECCO2R**

Grand WEST

**Moderators:** A Combes, K Barrett

15:00-15:20 D Brodie ECCO2R for COPD: The Era of RCTs is Coming

15:20-15:40 E Fan ECCO2R for Ultra-Protective Ventilation

15:40-16:00 A Vieillard-Baron ECCO2R May Have Beneficial Effects on the RV

16:00-16:20 A Combes What's Next for ECCO2R

16:20-16:30 Discussion

**What's New and What's Forgotten In Critical Care ID – CCCF / CCIDN**

Sheraton AB

**Moderators:** A Kumar, S Qureshi

15:00-15:20 W Sligl What's New in Antimicrobials?

15:20-15:40 J Marshall What's New in Source Control?

15:40-16:00 A Kumar What's New in Diagnostics?

16:00-16:20 J Beigel What's Forgotten in Ancillary Therapies?

16:20-16:30 Discussion

**Plenary Address**

Grand EAST

**Moderators:** M Herridge, C Parshuram

16:30-17:00 S Dev Burnout, Physician Mental Health and Medical Culture

17:00-17:15 Questions and Discussion

**Notes:**

## FRIDAY, NOVEMBER 9, 2018

7:00-16:00	<b>REGISTRATION OPEN</b>	Concourse
7:00-8:00	Coffee & Tea Served	Vide Foyer

### Plenary Session Grand EAST

<b>Moderators:</b>	D Scales, M Tucci	
7:30-7:45	E Goligher	Was the EOLIA Trial Really Negative? A Bayesian Re-analysis
7:45-7:50	G Rubinfeld	Editorial Comments
7:50-8:00		Questions and Discussion

### Plenary Session: The (Canadian) History of Critical Care Grand EAST

<b>Moderators:</b>	A Fox-Robichaud, L Brochard	
8:00-8:15	B Fairley	60 Years Ago – Adult Critical Care at TGH
8:15-8:30	G Barker	50 Years Ago – Pediatric Critical Care at SickKids
8:30-8:45	J Marshall	30 Years Ago – The Canadian Critical Care Trials Group
8:45-9:00	B Fairley; T Hanson	Today – An Endowed Professorship in Critical Care Medicine

### ECMO Grand EAST

<b>Moderators:</b>	D Brodie, L Del Sorbo	
9:00-9:15	A Combes	EOLIA Results & Implications
9:15-9:30	G Annich	Anticoagulation for Extracorporeal Circulation
9:30-9:45	J Fraser	ECMO - Inflammation and Coagulation - An Unholy Alliance
9:45-10:00	C Hodgson	Are Long Term Outcomes Impacted by ECMO?

## Sepsis III Grand CENTRE

<b>Moderators:</b>	K Walley, A Leligdowicz	
9:00-9:15	H Wong	Mortality Prediction in Sepsis, Back to the Bench
9:15-9:30	K Walley	Obesity Paradox in Sepsis
9:30-9:45	A Fox- Robichaud	Biomarkers for Sepsis: Are We There Yet?
9:45-10:00	J Bubeck- Wardenberg	Microbiome and Critical Illness

## Clinical Research Grand WEST

<b>Moderators:</b>	K Burns, T Stelfox	
9:00-9:15	D Cook	On the Importance of Pilot Trials
9:15-9:30	G Rubinfeld	Predictive Validity to Define ICU Syndromes
9:30-9:45	M Shankar-Hari	Attributable Fraction of Sepsis and Trial Design?
9:45-10:00	J Marshall	Integrating Research, Quality Improvement, and Clinical Care

## Sleep & Sedation Sheraton AB

<b>Moderators:</b>	K Fiest, G Mehta	
9:00-9:15	C Hough	Early Sedation in Acute Respiratory Failure
9:15-9:30	G Mehta	Comfort Without Sedation
9:30-9:45	K Bosma	Is Sleep Deprivation an Important Problem in the ICU?
9:45-10:00	L Burry	Promoting Sleep in the ICU - Melatonin and More

## 10:00-10:30 BREAK

## Mechanical Ventilation – Monitoring & More Grand EAST

<b>Moderators:</b>	M Herridge, M Detsky	
10:30-10:50	J-C Richard	Monitoring of Mechanical Ventilation
10:50-11:10	M Schultz	Lung Ultrasound Plus SpO2 vs Chest X-ray Plus PaO2
11:10-11:30	L Munshi	Using Extravascular Lung Water in Lung Transplants
11:30-11:50	L Brochard	Airway Closure: Rediscovering the Pressure Volume Curve
11:50-12:00		Discussion

**End-of-Life Care**

Grand CENTRE

<b>Moderators:</b>	D Cook, O Smith
10:30-10:35	C Borjaille Oral Abstract: Mechanical Ventilation and Dementia
10:40-11:00	D White Requests for Futile or Potentially Inappropriate Treatment
11:00-11:20	R Fowler Physicians as Patients at End-of-life
11:20-11:40	J Downar Automated Tools to Help Advance Care Planning
11:40-12:00	C Parshuram Death and Dying in the PICU
	Discussion

**Education & Knowledge Translation**

Grand WEST

<b>Moderators:</b>	D Piquette, S Dev
10:30-10:50	R Arntfield Critical Care Ultrasound: How to Build a Training Program
10:50-11:10	D Piquette The Fuzzy Concept of Entrustment: Implications for CBME
11:10-11:30	T Stelfox How to Translate Science Into Better Patient Care
11:30-11:50	P Cardinal Frank Rutledge Award Lecture
11:50-12:00	Discussion

**Delirium**

Sheraton AB

<b>Moderator:</b>	L Burry, E Wilcox
10:30-10:50	G Boyd Pathophysiology of ICU Acquired Delirium
10:50-11:10	K Fiest Novel ICU Delirium Detection Strategies
11:10-11:30	Y Skrobik Effective Pharmacological Delirium Prevention
11:30-11:50	R Stapleton Novel Approaches to Restraints in the ICU
11:50-12:00	Discussion

**Plenary Address –  
CIHR-CCCS Distinguished Lecture in Critical Care**

Grand EAST

<b>Moderators:</b>	A Fox-Robichaud, D Cook
12:00-12:30	J Marshall The Art and Science of Collaboration
12:30-13:30	LUNCH

**Treatments and Targets in ARDS**

Grand EAST

<b>Moderators:</b>	L Brochard, C Hodgson
13:30-13:50	L Munshi ARDS in Immunocompromised Patients
13:50-14:10	G Bellani Role on NIV in ARDS
14:10-14:30	D Brodie To Prone or to Cannulate?
14:30-14:50	M Amato Mechanical Power vs. Driving Pressure
14:50-15:00	Discussion

**Sick Kids Alumni**

Grand CENTRE

<b>Moderators:</b>	P Cox, G Barker
13:30-13:45	P Cox Fellowships for Success
13:45-14:00	M Halberthal Disasters & Delivery
14:00-14:15	S Shemie Tall Tales and True From a Legendary Past
14:15-15:00	A Critical Care Journey
	Alumni including: Drs. Corrine Balit, Michèle Mérat, Oliver Ross, Jackie Ong

**“The Fifth Element” – The Future of Point-of-Care  
Ultrasound in Acute Care Medicine – PART 1**

Grand WEST

<b>Moderators:</b>	R Arntfield, M Meineri
13:30-13:50	M Meineri Point-of-Care Ultrasound in Perioperative Medicine
13:50-14:10	G Douflé The Future, Present, and Past of ECHO in Critical Care
14:10-14:30	A Goffi The Future of Lung Ultrasound in Critical Care
14:30-14:50	P Bertini Ultrasound and Precision Medicine in Resuscitation
14:50-15:00	Discussion



**Microbiome & Viruses**

Sheraton AB

**Moderators:** M Klompas, A Kumar

13:30-13:50 M Schultz The Pulmonary Microbiome in Pneumonia

13:50-14:10 M Klompas The Role of Viruses in Severe Respiratory Infections

14:10-14:30 J Bubeck-Wardenberg Vaccines and Infection Prevention in the ICU

14:30-14:50 R Stapleton CMV in the ICU: Ignore, Prevent, or Treat?

14:50-15:00 Discussion

15:00-15:30 BREAK

**Caring for Staff and Families**

Grand EAST

**Moderators:** D White, S Dev

15:30-15:50 D Costa Solutions to Burnout and Psychological Distress

15:50-16:10 C Parshuram Moral Distress, Depersonalization and Uncertainty in the ICU

16:10-16:30 D White Results and Reflections from the PARTNER Trial

16:30-16:50 M Herridge Family Outcomes After Critical Illness: Our Responsibility?

16:50-17:00 Discussion

**Sick Kids Alumni**

Grand CENTRE

**Moderators:** S Schwartz, D Bohn

15:30-15:45 S Schwartz Cardiac Critical Care Evolution

15:45-16:00 L Shekerdemian Pediatric Critical Care Across Hemispheres

16:00-16:15 K Morris Delivery of Critical Care Outside the CCU

16:15-17:00 A Critical Care Journey

Alumni including: Drs. Satoshi Nakagawa, Paul Jameson, Astrid Haenecour, Tom Schepens

**“The Fifth Element” – The Future of Point-of-Care Ultrasound in Acute Care Medicine – PART 2**

Grand WEST

**Moderators:** M Meineri, A Goffi

15:30-15:50 N Pagoulatos Artificial Intelligence &amp; POCUS

15:50-16:05 R Arntfield PRO: Resuscitative Ultrasound is an Essential Skill

16:05-16:20 S Magder CON: Resuscitative Ultrasound is Not So Essential

16:20-16:30 Rebuttal and Questions

16:30-17:00 A Goffi; M Meineri POCUS Cases

**Notes:**



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